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[54] **DYNAMIC BANDWIDTH ESTIMATION AND ADAPTATION IN HIGH SPEED PACKET SWITCHING NETWORKS**

[75] Inventors: **Jean-Marc Berthaud**, Villeneuve Loubet; **Claude Galand**, Cagnes sur Mer; **Pierre-Andre Foriel**, St. Laurent du Var; **Stephane Lengelle**, Antibes; **Laurent Nicolas**, Villeneuve Loubet, all of France

[73] Assignee: **International Business Machines Corporation**, Armonk, N.Y.

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[52] **U.S. Cl.** **370/232**; 370/431

[58] **Field of Search** 370/230, 232, 370/233, 234, 235, 431, 437, 468

[56] **References Cited**

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Primary Examiner—Chi H. Pham
Assistant Examiner—Kim T. Nguyen
Attorney, Agent, or Firm—Gerald R. Woods

[57] **ABSTRACT**

A system adapts access to a packet switching network. A dynamic bandwidth adaptation continuously monitors the mean bit rate of a signal source and the loss probability of a connection in the network. A filtering means removes noise from the mean bit rate and loss probabilty. A test means determine whether the values fall within a pre-defined acceptable adaptation region in a mean bit rate, loss probability plane. Triggering means initiate bandwidth adaptation procedures when the values fall outside of the region which in turn, initiate means for acquiring a new connection bandwidth, and determining new parameters for the adaptation mechanism.

9 Claims, 7 Drawing Sheets